

ABSTRACT OF THE DISCLOSURE

A system and method of selecting and viewing communication traffic transmitted over an optical channel selected from among a plurality of possible channels without disrupting the communication traffic occurring over the selected channel or other channels is presented. The system and method includes an optical channel analyzing switch which taps each of the possible plurality of channels and selects a specific channel for routing to a network analyzer. The signal on the selected channel, prior to being analyzed by the network analyzer, undergoes clock and data recovery and retiming/recombination to mitigate contamination from routing and switching the selected original signal between the signal source and the network analyzer. The retimed and recombined channel signal results in a signal, as presented to the network analyzer, which is representative of the original channel signal.

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